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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/710,314	07/01/2004	Leonard Shaner	81100061 / FMC 1755 PUS	4313
28395	7590	11/16/2006		
BROOKS KUSHMAN P.C./FGTL 1000 TOWN CENTER 22ND FLOOR SOUTHFIELD, MI 48075-1238			EXAMINER SPISICH, GEORGE D	
			ART UNIT 3616	PAPER NUMBER

DATE MAILED: 11/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/710,314

Applicant(s)

SHANER ET AL.

Examiner

George D. Spisich

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-12 is/are allowed.
- 6) ☒ Claim(s) 1-7, 13, 14 and 16-20 is/are rejected.
- 7) ☒ Claim(s) 15 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/1/04, 12/16/05</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,7,13 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhao et al. (USPN 6,991,257).

Zhao et al. discloses a side airbag (14) apparatus (see Fig. 4A-B) comprising a generally wedge shaped rear aspect when deployed, narrowing from an upper region to a lower region, thereby inhibiting loading on the thorax of an occupant of the vehicle seated adjacent the deployed airbag, and an inflator (18) mounted to a portion of the seat and cooperating with the airbag to supply gas thereto, thereby facilitating deployment of the airbag.

The airbag (14) (as at least shown in Fig. 5A-C) shows what is well known in the airbag art, to provide a reinforced region (any area of the airbag) for providing additional strength to the airbag.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhao et al. (USPN 6,991,257) in view of Semchena et al. (USPN 5,251,931).

Zhao et al. has been discussed in the prior rejection. However, the airbag of Zhao et al. does not have a wedge shape side aspect.

Semchena et al. (as shown in at least Figs. 4 and 5) shows a side airbag having a generally wedge shaped side aspect including a posterior edge, a top edge extending forward from the posterior edge, and a bottom edge. At least a portion of the bottom edge extending forward and upward from the posterior edge, thereby further inhibiting loading on the thorax of an occupant of the vehicle seated adjacent the deployed airbag.

It is well known in the airbag art to have various shapes for airbags which provide protection in a variety of vehicle locations and with respect to parts of a vehicle occupant's body.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the airbag of Zhao et al. so as to provide a "taller" portion of the airbag towards the rear of the airbag and a tapering portion toward the front (where impact with the occupant's torso is not likely) so as to provide a wedge-shaped

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side aspect as taught by Semchena et al. so as to provide enhanced protection for an occupant seated adjacent the deployed airbag.

Claims 3,6 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhao et al. (USPN 6,991,257) in view of Rasch et al. (USPN 6,783,151).

Zhao et al. has been discussed in a prior rejection. However, Zhao et al. does not show a generally wedge shaped top aspect narrowing from a posterior region to a front region or having a vent for venting gas from the airbag.

Rasch et al. (shown in Fig 1C), shows a side airbag having a "generally wedge shaped" top aspect that narrows from a posterior region to a front region. This top aspect provides a wider airbag where the occupant will impact the airbag with respect to the front region of the airbag.

Furthermore, as shown in Figs. 4A and 4B, Rasch et al. discloses a vent (42) for venting gas from the airbag. This is a well known feature in the airbag art to allow for safer deflation of the airbag and enhanced protection of the occupant.

In both Zhao et al. and Rasch et al., the seat includes a longitudinal seat axis, and the top aspect of the deployed airbag defines an airbag axis and the inflator is mounted on a portion of the seat such that the airbag axis forms an angle of less than 30 degrees with the longitudinal axis.

It is well known in the airbag art to have various shapes for airbags which provide protection in a variety of vehicle locations and with respect to parts of a vehicle occupant's body.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the airbag of Zkao et al. by provided a generally wedge shaped top aspect that narrows to the front and include a deflation vent as taught by Rasch et al. so as to provide enhanced protection of the occupant in the event of a side collision.

Claims 4,5,16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhao et al. (USPN 6,991,257) in view of Keshavaraj et al. (USPN 6,344,251).

Zhao et al. has been discussed in a prior rejection. However, Zhao et al. does not show the airbag comprising a polymeric material of at least 600 denier or the inflator configured to inflate the airbag to at least 25 pounds per square inch.

Although Examiner maintains that it is well known in the art to use a known fabric of desired strength and an inflator that provides adequate inflation for occupant protection, Examiner is further relying on Keshavaraj et al. for this teaching.

Keshavaraj et al. (see col. 2, lines 45-67) discloses the use of a polymeric material having up to 840 denier and compatible with inflation of (col. 1, lines 50-52) pressures as high as 50 psi.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use any known material and inflator characteristics in the airbag arrangement of Zhao et al. such as one having the parameters and that is disclosed by Keshavaraj et al. since providing a strong airbag would be more durable and provide enhanced protection for the occupant seated beside the airbag.

Allowable Subject Matter

Claims 8-12 are allowed.

Claim 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Johansson et al. (USPUB2006/0012160), Madasamy et al. (USPUB2006/0202450), Kai (USPUB2004/0212186), Kai et al. (USPUB2002/0096869), Rasch et al. (USPUB2002/0047253), Wipasuramonton et al. (USPN 5,899,490), Mueller (USPN 6,029,993), Kutchey (USPN 6,155,598).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to George D. Spisich whose telephone number is (571) 272-6676. The examiner can normally be reached on Monday-Friday 9:00 to 6:30 except alt. Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (571) 272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

George D. Spisich
November 6, 2006



11/13/06
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